

RESOLUTION NO. 17-03-19

A RESOLUTION OF THE VILLAGE COUNCIL OF ISLAMORADA, VILLAGE OF ISLANDS, FLORIDA, APPROVING AN AGREEMENT WITH AQUATIC SYSTEMS, INC D/B/A VERTEX WATER FEATURES FOR PROFESSIONAL SERVICES RELATED TO THE CANAL NO. 148 RESTORATION PROJECT; AUTHORIZING VILLAGE OFFICIALS TO IMPLEMENT THE TERMS AND CONDITIONS OF THE AGREEMENT; AUTHORIZING THE VILLAGE MANAGER TO EXPEND BUDGETED FUNDS; AUTHORIZING VILLAGE OFFICIALS TO EXECUTE THE AGREEMENT; AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, Islamorada, Village of Islands (the “Village”) is a member of the Florida Keys National Marine Sanctuary Water Quality Protection Program Canal Restoration Advisory Subcommittee (the “Subcommittee”) established to address impaired water quality conditions; and

WHEREAS, the Village has sixty-two (62) canals listed within the Monroe County Canal Management Master Plan (CMMP) to address impaired water quality conditions; and

WHEREAS, on November 14, 2013, the Village Council adopted Resolution No. 13-11-85, thereby approving ten (10) demonstration canal projects in rank order by technology group based on the evaluation process of the Water Quality Protection Program Subcommittee on Canal Restoration; and

WHEREAS, the top ranked canals within the weed barrier technology category, Canal No. 148, on Lower Matecumbe Key, was selected as the second project to be implemented, and in November 2014, the first canal demonstration project was installed and completed (Canal No. 137); and

WHEREAS, the remediation of Canal No. 148 is included in the weed barrier demonstration project technology category approved by Resolution No.13-11-85; and

WHEREAS, the Village has secured a grant in the amount of \$50,000.00 from the Florida Department of Environmental Protection (“FDEP”) to pay for design, permitting and equipment costs for the weed barrier project; and

WHEREAS, the Village Council adopted Resolution 16-12-86, thereby committing \$50,000.00 to pay for the second canal restoration project to demonstrate the Village’s commitment to improving water quality in the Village’s canals; and

WHEREAS, the Village has obtained three (3) bids for the installation and maintenance costs of the demonstration project for Canal 148 where Aquatic Systems, Inc d/b/a Vertex Water Features (“Vertex”) was the lowest bidder; and

WHEREAS, Vertex desires to complete the installation and maintenance of the demonstration project for Canal No. 148 (the Services); and

WHEREAS, Vertex and the Village desire to enter into an Agreement for the aforementioned Services at a cost not to exceed \$32,333.90, as set forth in Attachment “1” hereto; and

WHEREAS, the Village Council finds that approval of the Agreement with Vertex will advance the public health, safety and welfare of the Village and its residents.

NOW, THEREFORE, BE IT RESOLVED BY THE VILLAGE COUNCIL OF ISLAMORADA, VILLAGE OF ISLANDS, FLORIDA, AS FOLLOWS:

Section 1. Recitals. The above recitals are true and correct and incorporated into this Resolution by this reference.

Section 2. Approval of Agreement. The Village Council hereby approves the Agreement between Vertex and the Village to provide canal restoration project services in an amount \$32,333.90 for Canal Restoration Project No. 148, a copy of which is attached as Exhibit

A together with such non-material changes as may be acceptable to the Village Manager and approved as to form and legality by the Village Attorney.

Section 3. Authorization of Village Officials. The Village Manager and/or his designee and the Village Attorney are authorized to take all actions necessary to implement the terms and conditions of the Agreement.

Section 4. Authorization of Fund Expenditures. Notwithstanding the limitations imposed upon the Village Manager pursuant to the Village's Purchasing Procedures Ordinance, the Village Manager is authorized to expend budgeted funds to implement canal restoration within the Village, and the Village Council.

Section 5. Execution of Agreement. The Village Manager is authorized to execute the Agreement on behalf of the Village, to execute any required agreements and/or documents to implement the terms and conditions of the Agreement and to execute any extensions and/or amendments to the Agreement, subject to the approval as to form and legality by the Village Attorney.

Section 6. Effective Date. This Resolution shall take effect immediately upon adoption.

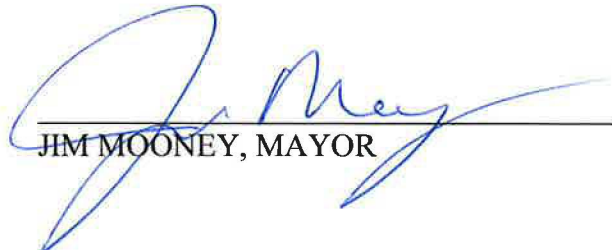
Motion to adopt by Councilwoman Deb Gillis, second by Vice Mayor Chris Sante.

FINAL VOTE AT ADOPTION

VILLAGE COUNCIL OF ISLAMORADA, VILLAGE OF ISLANDS:

Mayor Jim Mooney	YES
Vice Mayor Chris Sante	YES
Councilman Mike Forster	YES
Councilman Deb Gillis	YES
Councilwoman Cheryl Meads	YES

PASSED AND ADOPTED ON THIS 9TH DAY OF MARCH, 2017.



JIM MOONEY, MAYOR

ATTEST:



KELLY TOOTH, VILLAGE CLERK

APPROVED AS TO FORM AND LEGALITY
FOR THE USE AND BENEFIT OF ISLAMORADA,
VILLAGE OF ISLANDS ONLY



ROGET V. BRYAN, VILLAGE ATTORNEY

AGREEMENT

THIS IS AN AGREEMENT, dated the 4 day of April, 2017, between:

ISLAMORADA, VILLAGE OF ISLANDS
a Florida municipal corporation, hereinafter "VILLAGE,"

and

VERTEX WATER FEATURES, INC.
a for profit corporation, authorized to do business in the State of
Florida, hereinafter "CONSULTANT."

WITNESSETH:

In consideration of the mutual terms and condition, promises, covenants, and payments hereinafter set forth, VILLAGE and CONSULTANT agree as follows:

ARTICLE 1

PREAMBLE

In order to establish the background, context and form of reference for this Agreement and to generally express the objectives, and intentions, of the respective parties herein, the following statements, representations and explanations shall be accepted as predicates for the undertakings and commitments included within the provisions which follow and may be relied upon by the parties as essential elements of the mutual considerations upon which this Agreement is based.

1.1 The VILLAGE is in need of an independent contractor to provide services related to the installation and maintenance of AirGate Compressors and their components on Upper Matecumbe Key (Mate-Lido Beach Subdivision) in accordance with the Village's Canal Restoration Demonstration Project No. 148.

1.2 On January 19, 2017, the VILLAGE received a proposal from CONSULTANT to provide services for the installation and maintenance of AirGate Compressors and their components w for the Village's Canal Restoration Demonstration Project No. 148 on Upper Matecumbe Key.

1.3 The VILLAGE and CONSULTANT desire to enter into an Agreement for the provision of installation and maintenance of AirGate Compressors and their components as set forth herein.

1.4 The Village Manager is authorized to execute an agreement with CONSULTANT for services related to the scope of work for installation and maintenance set forth in the Proposal attached hereto as Exhibit "A" and as more particularly described herein.

ARTICLE 2 SCOPE OF WORK

2.1 The CONSULTANT shall furnish all of the materials, tools, supplies, and labor necessary to perform all of the work described in the Proposal, a copy of which is attached hereto and specifically made a part of this Agreement as Exhibit "A".

2.2 CONSULTANT hereby represents to VILLAGE, with full knowledge that VILLAGE is relying upon these representations when entering into this Agreement with CONSULTANT, that CONSULTANT has the professional expertise, experience and manpower to perform the services to be provided by CONSULTANT pursuant to the terms of this Agreement.

2.3 CONSULTANT assumes professional and technical responsibility for performance of its services to be provided hereunder in accordance with applicable recognized professional standards. If within twelve (12) months following completion of its services, such services fail to meet the aforesaid standards, and the VILLAGE promptly advises CONSULTANT thereof in writing, CONSULTANT agrees to re-perform such deficient services without charge to the VILLAGE.

2.4 None of the work or services under this contract shall be subcontracted beyond that shown on List of Major Sub-contractors submitted to the VILLAGE by CONSULTANT, unless CONSULTANT obtains prior written consent from the VILLAGE. Approved subcontractors shall be subject to each provision of this contract and CONSULTANT shall be responsible and indemnify the VILLAGE for all subcontractors' acts, errors or omissions.

ARTICLE 3 TIME FOR COMPLETION

3.1 The CONSULTANT shall commence work as directed by VILLAGE and in accordance with a project timeline to be provided to CONSULTANT by the VILLAGE. CONSULTANT shall complete all work in a timely manner in accordance with the project timeline and as stated in Exhibit "A" to this Agreement.

3.2 Anything to the contrary notwithstanding, minor adjustment to the timetable for completion approved by VILLAGE in advance, in writing, will not constitute a delay by CONSULTANT. Furthermore, a delay due to an Act of God, fire, lockout, strike or labor dispute, riot or civil commotion, act of public enemy or other cause beyond the control of CONSULTANT shall extend this Agreement for a period equal to such delay and during this period such delay shall not constitute a delay by CONSULTANT for which liquidated damages are due.

ARTICLE 4
CONTRACT SUM

4.1 The VILLAGE hereby agrees to pay CONSULTANT for the faithful performance of this Agreement, for work completed in accordance with the Proposal attached hereto as Exhibit "A", and as directed by VILLAGE. Prices for work completed by the CONSULTANT shall be as reflected in CONSULTANT's Proposal attached hereto and made a part hereof as Exhibit "A". A total base contact price for installation and maintenance hereto is referred to as Contract Sum and shall not exceed **Thirty-Two Thousand Three Hundred and Thirty-three Dollars and Ninety cents (\$32,333.90)**.

4.2 The VILLAGE will make payments to CONSULTANT for completed and proper work and in the amounts stated in Exhibit "A".

4.3 The CONSULTANT shall guarantee all portions of the Project against poor workmanship and faulty materials for a period of twelve (12) months after final payment and shall immediately correct any defects which may appear during this period upon notification by VILLAGE.

4.4 The making and acceptance of the final payment shall constitute a waiver of all claims by the CONSULTANT other than those arising from requirements of the specifications.

4.5 CONSULTANT is prohibited from placing a lien on the Village's property. This prohibition applies to; *inter alia*, all sub-consultants and subcontractors, suppliers and labors.

ARTICLE 5
CONSULTANT'S LIABILITY INSURANCE

5.1 The CONSULTANT shall not commence work under this contract until he has obtained all insurance required under this paragraph and such insurance has been approved by the VILLAGE nor shall the CONSULTANT allow any Subcontractor to commence work on his sub-contract until all similar such insurance required of the subcontractor has been obtained and approved.

5.2 Certificates of insurance, reflecting evidence of the required insurance, shall be filed with the Village prior to the commencement of the work. These Certificates shall contain a provision that coverage afforded under these policies will not be canceled until at least thirty (30) days prior written notice has been given to the VILLAGE. Policies shall be issued by companies authorized to do business under the laws of the State of Florida.

5.3 Financial Ratings must be no less than "A" in the latest edition of "Bests Key Rating Guide", published by A.M. Best Guide.

5.4 Insurance shall be in force until all work required to be performed under the terms of the Contract is satisfactorily completed as evidenced by the formal acceptance by the VILLAGE. In the event the insurance certificate provided indicates that the insurance shall terminate and lapse during the period of this contract, then in that event, the CONSULTANT shall furnish, at least thirty (30) days prior to the expiration of the date of such insurance, a renewed certificate of insurance as proof that equal and like coverage for the balance of the period of the contract and extension thereunder is in effect. The CONSULTANT shall not continue to work pursuant to this contract unless all required insurance remains in full force and effect.

5.5 Comprehensive General Liability insurance to cover liability bodily injury and property damage. Exposures to be covered are: premises, operations, products/completed operations, and certain contracts. Coverage must be written on an occurrence basis, with the following limits of liability:

- a) Workers' Compensation Insurance - as required by law;
- b) Comprehensive General Liability Insurance - \$1,000,000 per occurrence;
- c) Automobile Liability Insurance - \$1,000,000 per occurrence, \$1,000,000 per Accident for bodily injury and \$1,000,000 per accident for property damage.

5.6 The CONSULTANT shall hold the VILLAGE, its agents, and employees, harmless on account of claims for damages to persons, property or premises arising out of CONSULTANT's negligent operations in completing this Agreement and name the VILLAGE as an additional insured under their policy.

5.7 The VILLAGE reserves the right to require any other insurance coverage it deems necessary depending upon the exposures.

ARTICLE 6 PROTECTION OF PROPERTY

6.1 At all times during the performance of this Contract, the CONSULTANT shall protect the VILLAGE's property and properties adjoining the Project site from all damage whatsoever on account of the work being carried on pursuant to this Agreement.

ARTICLE 7 CONSULTANT'S INDEMNIFICATION

7.1 The CONSULTANT agrees to release the VILLAGE from and against any and all liability and responsibility in connection with the above mentioned matters. The CONSULTANT further agrees not to sue or seek any money or damages from VILLAGE in connection with the above mentioned matters, except in the event that the VILLAGE fails to pay to CONSULTANT the fees and costs as provided for in Article 4 herein.

7.2 The CONSULTANT agrees to indemnify and hold harmless the VILLAGE, its trustees, elected and appointed officers, agents, servants and employees, from and against any and all claims, demands, or causes of action of whatsoever kind or nature, and the resulting losses, costs, expenses, reasonable attorneys' fees, liabilities, damages, orders, judgments, or decrees, sustained by the VILLAGE or any third party arising out of, or by reason of, or resulting from the CONSULTANT's negligent acts, errors, or omissions.

7.3 If a court of competent jurisdiction holds the Village liable for certain tortuous acts of its agents, officers, or employees, such liability shall be limited to the extent and limit provided in 768.28, Florida Statutes. This provision shall not be construed as a waiver of any right or defense that the Village may possess. The Village specifically reserves all rights as against any and all claims that may be brought.

ARTICLE 8 INDEPENDENT CONTRACTOR

8.1 This Agreement does not create an employee/employer relationship between the parties. It is the intent of the parties that the CONSULTANT is an independent contractor under this Agreement and not the VILLAGE's employee for all purposes, including but not limited to, the application of the Fair Labor Standards Act minimum wage and overtime payments, Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act, the provisions of the Internal Revenue Code, the State Workers Compensation Act, and the State unemployment insurance law. The CONSULTANT shall retain sole and absolute discretion in the judgment of the manner and means of carrying out the CONSULTANT's activities and responsibilities hereunder provided. This Agreement shall not be construed as creating any joint employment relationship between the CONSULTANT and the VILLAGE and the VILLAGE will not be liable for any obligation incurred by CONSULTANT, including but not limited to unpaid minimum wages and/or overtime premiums.

ARTICLE 9 PERFORMANCE BOND

9.1 No performance bond shall be required under this Agreement.

ARTICLE 10 CHANGES TO SCOPE OF WORK AND ADDITIONAL WORK

10.1 The VILLAGE or CONSULTANT may request changes that would increase, decrease or otherwise modify the Scope of Services/Basic Services to be provided under this Agreement as described in Article 2 of this Agreement. Such changes or additional services must be in accordance with the provisions of the Code of Ordinances of the VILLAGE and must be contained in a written amendment, executed by the parties hereto, with the same formality and with equality and dignity prior to any deviation from the terms of this Agreement, including the initiation of any additional or extra work. Each amendment shall at a minimum include the following information on each project:

PROJECT NAME
PROJECT DESCRIPTION
ESTIMATED PROJECT COST
ESTIMATED COST FOR ADDITION OR CHANGE TO PROJECT CONTRACT
ESTIMATED PROJECT COMPLETION DATE

10.2 In no event will the CONSULTANT be compensated for any work which has not been described in a separate written agreement executed by the parties hereto.

ARTICLE 11
TERM AND TERMINATION

11.1 This Agreement may be terminated by either party for cause, or the VILLAGE for convenience, upon ten (10) days written notice by the VILLAGE to CONSULTANT in which event the CONSULTANT shall be paid its compensation for services performed to termination date. In the event that the CONSULTANT abandons this Agreement or causes it to be terminated, he shall indemnify the VILLAGE against any loss pertaining to this termination up to a maximum of the full contracted fee amount. All finished or unfinished documents, data, studies, plans, surveys, and reports prepared by CONSULTANT shall become the property of VILLAGE and shall be delivered by CONSULTANT to VILLAGE.

11.2 This Agreement shall take effect as of the date of execution as shown herein below and continue in effect for a period of two (2) years from the date of execution.

ARTICLE 12
CONTRACT DOCUMENTS

12.1 CONSULTANT and VILLAGE hereby agree that the following Specification and Contract Documents, which are attached hereto and made a part thereof, are fully incorporated herein and made a part of this Agreement, as if written herein word for word: this Agreement; CONSULTANT's Proposal for AirGate Compressor Installation and Maintenance to the Village of Islamorada, as set forth in and made a part of this Agreement as Exhibit "A"; and all other exhibits thereto.

ARTICLE 13
MISCELLANEOUS

13.1 Legal Representation. It is acknowledged that each party to this Agreement had the opportunity to be represented by counsel in the preparation of this Agreement and, accordingly, the rule that a contract shall be interpreted strictly against the party preparing same shall not apply due to the joint contribution of both parties.

13.2 Assignments. This Agreement, or any interest herein, shall not be assigned, transferred or otherwise encumbered, under any circumstances, by CONSULTANT without the prior written consent of VILLAGE. For purposes of this Agreement, any change of

ownership of CONSULTANT shall constitute an assignment which requires VILLAGE approval. However, this Agreement shall run to the VILLAGE and its successors and assigns.

13.3 Records. CONSULTANT shall keep books and records and require any and all subcontractors to keep books and records as may be necessary in order to record complete and correct entries as to personnel hours charged to this engagement, and any expenses for which CONSULTANT expects to be reimbursed, if applicable. Such books and records will be available at all reasonable times for examination and audit by VILLAGE and shall be kept for a period of three (3) years after the completion of all work to be performed pursuant to this Agreement. Incomplete or incorrect entries in such books and records will be grounds for disallowance by VILLAGE of any fees or expenses based upon such entries.

VILLAGE is a public agency subject to Chapter 119, Florida Statutes. To the extent that CONSULTANT is acting on behalf of VILLAGE pursuant to Section 119.0701, Florida Statutes, CONSULTANT shall:

- a. Keep and maintain public records that ordinarily and necessarily would be required to be kept and maintained by VILLAGE were VILLAGE performing the services under this agreement;
- b. Provide the public with access to such public records on the same terms and conditions that the County would provide the records and at a cost that does not exceed that provided in Chapter 119, Florida Statutes, or as otherwise provided by law;
- c. Ensure that public records that are exempt or that are confidential and exempt from public record requirements are not disclosed except as authorized by law; and
- d. Meet all requirements for retaining public records and transfer to VILLAGE, at no cost, all public records in possession of the CONSULTANT upon termination of this Agreement and destroy any duplicate public records that are exempt or confidential and exempt. All records stored electronically must be provided to the VILLAGE.

13.4 Ownership of Documents. Reports, surveys, plans, studies and other data provided in connection with this Agreement are and shall remain the property of Village.

13.5 No Contingent Fees. CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this Agreement, and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for CONSULTANT, any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. For the breach or violation of this provision, the VILLAGE shall have the right to terminate the Agreement without liability at its discretion, to deduct from the contract price, or otherwise recover the full amount of such fee, commission, percentage, gift or consideration.

13.6 Notice. Whenever any party desires to give notice unto any other party, it must be given by written notice, sent by registered United States mail, with return receipt requested, addressed to the party for whom it is intended and the remaining party, at the places last specified, and the places for giving of notice shall remain such until they shall have been changed by written notice in compliance with the provisions of this section. For the present, the CONSULTANT and the VILLAGE designate the following as the respective places for giving of notice:

VILLAGE: Seth Lawless, Village Manager
Village Administration Center
Islamorada, Village of Islands
86800 Overseas Highway
Islamorada, Florida 33023

Copy To: Roget V. Bryan, Village Attorney
Islamorada, Village of Islands
86800 Overseas Highway
Islamorada, Florida 33023

CONSULTANT: John Gardner, President
Vertex Water Features, Inc.
2100 N.W. 33rd Street
Pompano Beach, Florida 33069

13.7 Binding Authority. Each person signing this Agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and to bind and obligate such party with respect to all provisions contained in this Agreement.

13.8 Exhibits. Each Exhibit referred to in this Agreement forms an essential part of this Agreement. The exhibits if not physically attached should be treated as part of this Agreement and are incorporated herein by reference.

13.9 Headings. Headings herein are for convenience of reference only and shall not be considered on any interpretation of this Agreement.

13.10 Severability. If any provision of this Agreement or application thereof to any person or situation shall, to any extent, be held invalid or unenforceable, the remainder of this Agreement, and the application of such provisions to persons or situations other than those as to which it shall have been held invalid or unenforceable shall not be affected thereby, and shall continue in full force and effect, and be enforced to the fullest extent permitted by law.

13.11 Governing Law. This Agreement shall be governed by the laws of the State of Florida with venue lying in Monroe County, Florida.

13.12 Disputes. Any claim, objection, or dispute arising out of the terms of this Agreement shall be litigated in the Sixteenth Judicial Circuit Court in and for Monroe County.

13.13 Attorney's Fees. To the extent authorized by law, in the event that either party brings suit for enforcement of this Agreement, the prevailing party shall be entitled to attorney's fees and court costs in addition to any other remedy afforded by law.

13.14 Extent of Agreement. This Agreement together with Contract Documents, attached as an Exhibit hereto, as amended herein above represents the entire and integrated agreement between the VILLAGE and the CONSULTANT and supersedes all prior negotiations, representations or agreements, either written or oral.

13.15 Waiver. Failure of the VILLAGE to insist upon strict performance of any provision or condition of this Agreement, or to execute any right therein contained, shall not be construed as a waiver or relinquishment for the future of any such provision, condition, or right, but the same shall remain in full force and effect.

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IN WITNESS WHEREOF, the parties have executed this Agreement on the respective dates under each signature: The VILLAGE, signing by and through its Village Manager, attested to by its Village Clerk, duly authorized to execute same, and by CONSULTANT, by and through its President, duly authorized officer to execute same.

VILLAGE

ISLAMORADA, VILLAGE OF ISLANDS, FLORIDA

By: 
Seth Lawless, Village Manager

AUTHENTICATION:


Kelly Toth, Village Clerk

(SEAL)



APPROVED AS TO FORM AND LEGALITY
FOR THE USE AND BENEFIT OF ISLAMORADA,
VILLAGE OF ISLANDS, FLORIDA, ONLY


Roget V. Bryan, Village Attorney

CONSULTANT

WITNESSES:

L.D. Domickowski

BY:

John Gardner, President
John Gardner on behalf of Vertex
Water Features, Inc.

Debra Harwood

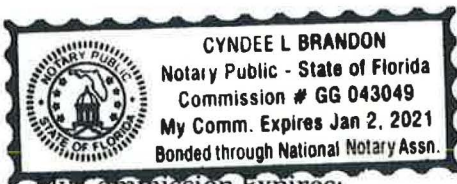
ATTEST:

John Gardner, Secretary
SECRETARY

STATE OF Florida)
COUNTY OF Broward)

BEFORE ME, an officer duly authorized by law to administer oaths and take acknowledgments, personally appeared John Gardner as President, of Vertex, a Florida corporation, and acknowledged executed the foregoing Agreement as the proper official of , for the use and purposes mentioned in it and affixed the official seal of the corporation, and that the instrument is the act and deed of that corporation.

IN WITNESS OF THE FOREGOING, I have set my hand and official seal at in the State and County aforesaid on this 4 day of April, 2017.



My Commission Expires:

1/2/21

Cyndee L. Brandon
NOTARY PUBLIC

See attached document for Exhibit "A"

(Proposal for AirGate Compressor Installation and Maintenance submitted by Vertex Water Features)



Exhibit 1 - Scope of Work

1.0 Equipment Specifications:

- A. The Contractor shall install the equipment, or approved equivalent, as specified on the Drawings (**Exhibit 2**). The Contractor shall submit all equipment changes to Islamorada, Village of Islands and the Engineer for approval prior to installing. Any proposed alternative blower system shall provide a minimum flow capacity of 60 cfm at an operating pressure of 10 psi, or if 3/4 inch internal diameter self-weighted tubing is used in place of 1/2 inch tubing; then the blower system shall provide a minimum flow capacity of 60 cfm at an operating pressure of 6 psi. The weather monitor and wind switch components cannot be replaced with a wind vane equipped with generic electrical components such as limit switches due to the short lifespan of the components.
- B. The electronic relay control panel shall be a NEMA Type 4 enclosure equipped with a Hand, Off, Auto (HOA) switch, a green run light, and the wind switch securely mounted flush with the face of the panel. The control panel shall provide circuit protection and motor starters with circuit breaker and overload protection. Additionally, the panel shall provide a motor start delay timer to prevent "chattering" of the motors. The delay timer shall be set to 2 minutes. The initial configuration of the wind switches shall be set so that the run condition is for SW, S, or SE wind directions (225 to 135 from north azimuth).
- C. The blowers shall be placed in a locking, corrosion resistant enclosure. The enclosure shall be noise reducing, with a maximum allowable noise level of 60 decibels. The enclosure shall be equipped with vents and cooling fans with a total system capacity of 600 cfm. For alternate blower systems, the enclosures shall be equipped with vents and cooling fans as necessary to maintain a temperature below the maximum motor operating temperature. The blowers shall be plumbed into a two 1.25" manifolds with a pressure relief valve located within the enclosure.

2.0 Final Examination And Acceptance:

- A. The contractor shall provide to the Engineer and Islamorada, Village of Islands, two, five minute videos demonstrating that the air curtain system is functioning properly. At a minimum the videos shall be shot from the northern and southern extent of the air curtain system, and preferably from water craft that traverses the air curtain system during the five minute video. During the video the contractor shall place an empty plastic water bottle on the windward side of the air curtain system, and show that the water bottle does not cross into the canal within a one minute period. The water bottle shall be retrieved from the canal after the video is complete.

- B. The contractor shall also provide additional videos to demonstrate that the wind switch is functioning properly and set to the appropriate configuration. The video shall document a run condition, a no-run condition, and a chattering condition. Prior to initiating the video, the motor start delay timer shall be set to one minute. The contractor shall first demonstrate that the configuration of the wind switch is correct by manually holding the weather monitor to face the north direction and shooting the wind switch display. While the weather monitor is still facing north, the contractor shall demonstrate that the green run light is on and the system is running. The contractor shall then manually rotate the weather station to face the west for a period of one minute, and then demonstrate that the green run light is off and the system is not running. The contractor shall then alternate the position of the weather monitor to face east then west every 30 seconds for 2 minutes. The system should remain off during this two minute period. The motor start delay timer shall be set to 2 minutes after the video is complete.

3.0 System Operation & Maintenance:

- A. **The contractor shall provide two years of system operation and maintenance (O&M).**
The O&M activities shall include:
 - a. Check, clean, and replace as necessary the blower filters, vanes, o-ring, and gasket in accordance with the manufacturer specifications. The air filters should be replaced at least quarterly, and the vanes should be replaced 2-3 times within a 2 year period.
 - b. Dive and clean fouling from the discs using a scrub brush or equivalent. Adjust the distribution manifold as necessary to reestablish equal air distribution once fouling has been removed from both sides of the weed barrier system.
 - c. Inspect the blower enclosure cooling fans and lubricate if necessary.
 - d. Inspect all visible plumbing lines, fittings, and components for signs of damage, degradation, or leaks, and correct or replace as necessary
- B. Maintenance visits shall be completed weekly for the first month, monthly for the first quarter, and quarterly thereafter for a total of 14 visits per site in a two year period.

4.0 Schedule:

- A. The Contractor shall commence performance of this Contract within ten (10) calendar days after the date of issuance to the Contractor by Owner of the Notice to Proceed. The Contractor shall accomplish Substantial Completion of the Project within **Thirty (30)** calendar days from Receipt of Equipment. Contractor shall accomplish Final Completion of the Project within thirty (30) calendar days thereafter.



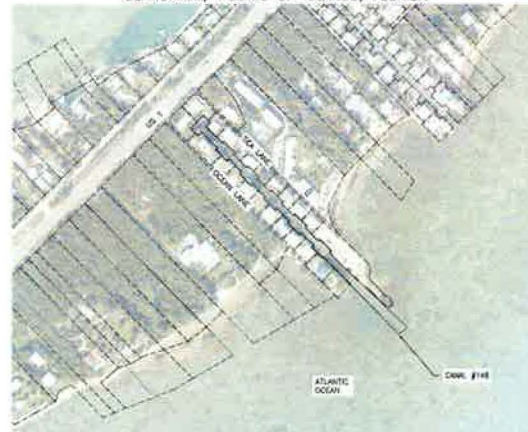
EXHIBIT 2 - CONSTRUCTION PLANS

GENERAL SCOPE OF SITE WORK FOR DESIGN, PERMITTING AND CONSTRUCTION OF CANAL #148 AIR CURTAIN RESTORATION ISLAMORADA, VILLAGE OF ISLANDS, LOWER MATECUMBE KEY, FLORIDA FINAL DESIGN SUBMITTAL

SHEET INDEX

C100	COVER SHEET
C110	GENERAL NOTES
C210	EXISTING SITE PLAN
C220	PROPOSED SITE PLAN
C230	PROPOSED EROSION AND SEDIMENT CONTROL
C310	DESIGN DETAILS I

LOCATED IN
SECTION 15, TOWNSHIP 64 SOUTH, RANGE 36 EAST
ISLAMORADA, VILLAGE OF ISLANDS, FLORIDA



VICINITY MAP

SUNSHINE STATE ONE CALL OF FLORIDA
CALL BEFORE YOU DIG
1-800-432-4770

1. CALL 1-800-432-4770 TWO FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) BEFORE DIGGING TO FIND OUT WHERE BURIED FACILITIES (ELECTRIC, GAS, TELECOMMUNICATIONS, CABLE WATER, SEWER) ARE LOCATED.
2. WAIT THE REQUIRED TIME FOR THE UTILITIES ON SITE TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS OR STAKES AND CONFIRM THAT THE SITE HAS BEEN LOCATED.
3. RESPECT AND PROTECT THE MARKS DURING THE PROJECT, IF MARKS ARE DESTROYED, REQUEST A NEW LOCATE TICKET.
4. DIG SAFELY, USING EXTREME CAUTION WHEN DIGGING WITHIN 24 INCHES ON EITHER SIDE OF THE MARKS TO AVOID HITTING THE BURIED UTILITY LINES.



PROJECT LOCATION

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN CHANGED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GOVERNING SPECIFICATIONS:
THE PROJECT DEVELOPMENT CODE;
CODE OF ORDINANCES ISLAMORADA VILLAGE OF ISLANDS DATED JANUARY 2016;
FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DESIGN STANDARDS 2010;
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP);
SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD);
UNITED STATES ARMY CORPS OF ENGINEERS (USACE);
IN THE EVENT OF A CONFLICT, THE MOST RESTRICTIVE APPLIES.

PLANS PROVIDED BY:



AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE AMERICAS
5845 NW 158TH STREET
MIAMI LAKES, FL 33014
TEL: (305) 219-8414 FAX: (305) 826-1799
WEBSITE: www.amecfw.com
E-MAIL: Stephen.Hanks@amecfw.com
ENGINEER OF RECORD: Stephen Hanks, P.E. (FL 72253)

DEVELOPER

MONROE COUNTY



ENVIRONMENT &
INFRASTRUCTURE AMERICAS
5845 NW 158TH STREET
MIAMI LAKES, FL 33014
TEL: (305) 818-8414

ENGINEER OF RECORD
STEPHEN HANKS
FL PE #72253

PROJECT:

**CANAL #148 LOWER
MATECUMBE KEY
AIR CURTAIN
RESTORATION
DESIGN AND PERMITTING**

APPLICANT:



AMEC PROJECT No:
6783-15-2882

REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:	SHJ/AM
DRAWN BY:	CAJ
CHECKED BY:	SHJ
APPROVED BY:	PH
DATE:	06/30/2018

SHEET TITLE:

COVER SHEET

SHEET NUMBER:	REV #
C100	
SHEET 1 OF 5 SHEETS	

NOTES

A. GENERAL

1. PROJECT OWNER'S NAME AND ADDRESS:

AIR CURTAIN LOCATION
MATECUMBE RESORT OWNERS ASSOCIATION, INC.
76261 OVERSEAS HWY
ISLAMORADA FL 33036
PARCEL ID # 00395580-000000

B. CONSTRUCTION NOTES

1. PROJECT LOCATION: LAT: 24°52'5.62"N LONG: 80°42'10.95"W

2. DESCRIPTION: THE PURPOSE OF THIS PROJECT IS TO INSTALL AN AIR CURTAIN SYSTEM TO PREVENT THE MIGRATION OF WEED WRACK INTO THE CANAL, AND THE SUBSEQUENT WATER QUALITY DEGRADATION ASSOCIATED WITH THE ACCUMULATION OF WEED WRACK ON THE CANAL BOTTOM.

3. CONSTRUCTION AND DEMOLITION DEBRIS SHOULD BE REMOVED FROM THE SITE AND DISPOSED ACCORDING TO FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION CHAPTER 62-701.

4. SEQUENCE OF MAJOR ACTIVITIES:

- (1) INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND MAINTAIN THROUGHOUT PROJECT
- (2) CONSTRUCT STAGING AREA
- (3) INSTALL ELECTRICAL CONDUIT, BREAKER PANEL, CONTROL PANEL, WIND SWITCH, WEATHER MONITOR, AND PUMP PLATFORM
- (4) INSTALL TRANSMISSION LINE, MANIFOLDS AND BLOWER PUMPS
- (5) INSTALL DIFFUSERS WITH DIVERS TO MINIMIZE DISTURBANCE OF THE CANAL BOTTOM
- (6) TURN ON WEED BARRIER SYSTEM AND ENSURE THE SYSTEM HAS A UNIFORM DISTRIBUTION OF BUBBLES ACROSS THE CANAL MOUTH
- (7) OBTAIN FINAL APPROVAL, REMOVE EROSION AND SEDIMENTATION CONTROLS AND STABILIZE ANY AREA DISTURBED BY THEIR REMOVAL
- (8) COMPLETE TWO YEARS OF SYSTEM OPERATION AND MAINTENANCE

5. AREA ESTIMATES: PROJECT BOUNDARY - 0.07 ± ACRES

6. ISLAMORADA AND THE CONTRACTOR SHALL HAVE A PRE-CONSTRUCTION MEETING TO DISCUSS THE COMPLEXITY AND POTENTIAL PUBLIC CONCERNS WITH THE PROJECT.

C. TEMPORARY EROSION AND SEDIMENT CONTROL

1. CONTRACTOR SHALL INSTALL PRIOR TO AND MAINTAIN DURING CONSTRUCTION ALL SEDIMENT CONTROL MEASURES AS REQUIRED TO ELIMINATE ALL SEDIMENTS ON THE SITE. IMPROPER SEDIMENT CONTROL MEASURES MAY RESULT IN CODE ENFORCEMENT VIOLATIONS.

2. TURBIDITY BARRIERS MUST BE INSTALLED PRIOR TO ANY WATER WORK AND ARE TO BE PLACED AS SHOWN AND/OR DIRECTED BY ENGINEER.

3. EROSION CONTROL MEASURES WILL BE INSPECTED AT LEAST DAILY AND REPAIRED BY THE GENERAL CONTRACTOR, IF REQUIRED.

4. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTROL OF EROSION WITHIN THE WORK SITE AND PREVENTION OF SEDIMENTATION OF ANY ADJACENT OR DOWNSTREAM WATERWAYS. THE EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. THE CONTRACTOR'S METHODS OF OPERATION MAY DICTATE ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND INSTALLING ADDITIONAL MEASURES. SEDIMENT AND EROSION CONTROL MEASURES SHALL COMPLY WITH CHAPTER 6 OF THE FLORIDA DEVELOPMENT MANUAL.

5. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION OF ISLAMORADA DESIGNATED REPRESENTATIVE.

6. THE CONTRACTOR SHALL PROTECT ANY EXISTING DITCHES, WETLAND VEGETATION, STORM DRAIN PIPES, AND INLETS IN THE VICINITY OF WORK TO BE PERFORMED FROM DAMAGE OR SILTATION, WHETHER OR NOT SPECIFICALLY IDENTIFIED IN THE PLANS.

7. EROSION CONTROL MEASURES DESCRIBED SHALL BE MAINTAINED UNTIL THE PROJECT IS DEEMED COMPLETE BY THE ISLAMORADA DESIGNATED REPRESENTATIVE.

8. ANY IMPACTS INCURRED BY THE ERECTION OF A TEMPORARY CONSTRUCTION STAGING AREA SHALL BE RETURNED TO MATCH EXISTING CONDITIONS AND APPROVED BY THE ISLAMORADA DESIGNATED REPRESENTATIVE.

9. CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD INTO PUBLIC STREETS. IF TRACKING OR FLOW OF MUD OCCURS, CONTRACTOR SHALL CONSTRUCT A SOIL TRACKING PREVENTION DEVICE IN ACCORDANCE WITH FOOT DESIGN STANDARD 2010, INDEX NO. 106.

10. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON ESTABLISHMENT OF PERMANENT VEGETATION OR PROJECT COMPLETION.

11. TURBIDITY BARRIERS SHALL MEET THE REQUIREMENTS AS SPECIFIED IN THE CONSTRUCTION PLANS.

12. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 20 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

13. NOTIFY APPROPRIATE ISLAMORADA REPRESENTATIVE 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

14. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ENSURING ALL PERMIT REQUIREMENTS FOR TURBIDITY ARE MET. THE TURBIDITY LEVELS OUTSIDE THE CANAL (OUTSTANDING FLORIDA WATERS) SHALL NOT EXCEED 0 NTU'S ABOVE BACKGROUND. THE TURBIDITY MONITORING WILL BE PERFORMED BY MONROE COUNTY REPRESENTATIVE AND SHALL BE LOGGED DURING ALL WATER WORK.

D. EXISTING INFRASTRUCTURE

1. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING INFRASTRUCTURE THAT IS IMPACTED DURING CONSTRUCTION TO MATCH PRE-CONSTRUCTION CONDITIONS.

2. THE CONTRACTOR IS RESPONSIBLE FOR REGRADING/RESODDING ANY AREAS THAT IS IMPACTED DURING CONSTRUCTION TO MATCH PRE-CONSTRUCTION CONDITIONS.

E. EXISTING UTILITIES

1. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL PERTINENT UTILITIES COMPANIES 48 HOURS PRIOR TO CONSTRUCTION FOR LOCATION OF UNDERGROUND UTILITY LINES.

2. IN THE EVENT THE UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL RESTORE TO MATCH EXISTING CONDITIONS AT CONTRACTOR'S EXPENSE AND NOTIFY THE PERTINENT UTILITY COMPANY IMMEDIATELY.



ENVIRONMENT &
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ENGINEER OF RECORD
STEPHEN HAINES
FL PE # 2253

PROJECT
CANAL #148 LOWER
MATECUMBE KEY
AIR CURTAIN
RESTORATION
DESIGN AND PERMITTING

APPLICANT:



aMEC PROJECT NO.
E743-16-2852

REVISIONS			
NO.	DATE	BY	APPROVED

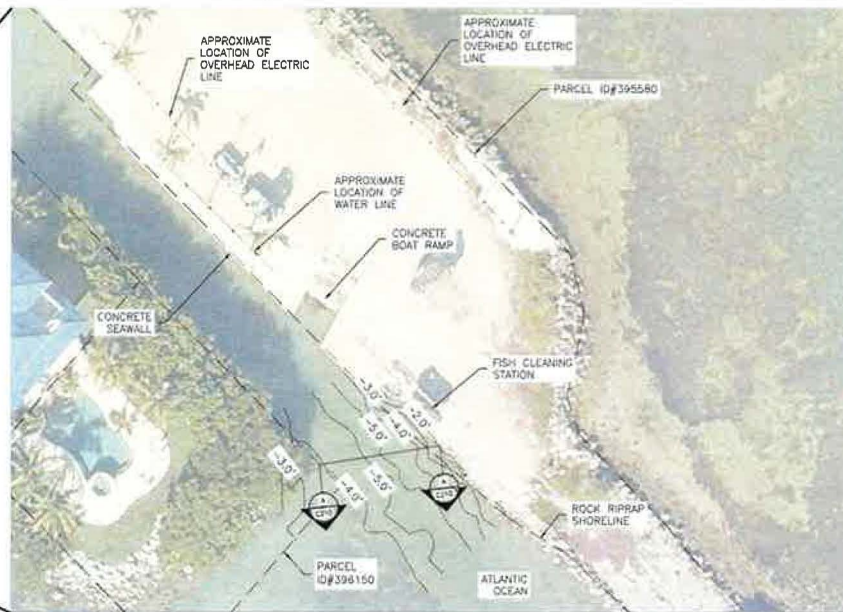
DESIGNED BY	SJA/SMP
DRAWN BY	LWC
CHECKED BY	SJA
APPROVED BY	RF
DATE	05/30/2016

SHEET TITLE
GENERAL NOTES

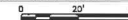
SHEET NUMBER	REV. #
C110	
SHEET 2 OF 6 SHEETS	



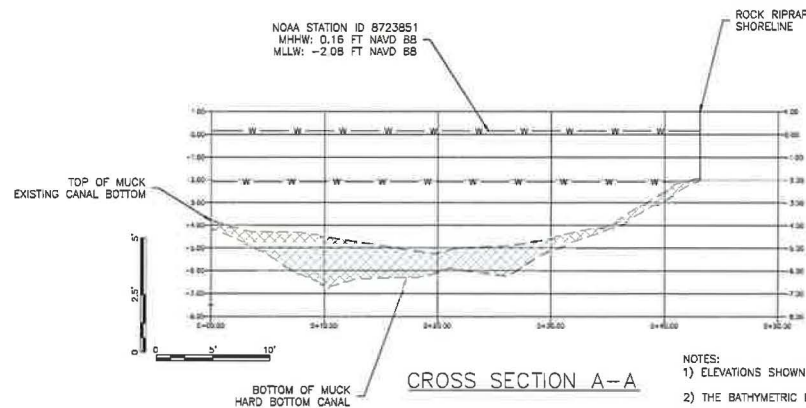
OVERALL SITE LAYOUT



EXISTING SITE LAYOUT - WEED BARRIER



LEGEND
 □ MONROE COUNTY PARCELS, 2010
 --- EXISTING CANAL BATHYMETRY
 (AMEC - SEPTEMBER 2016)



CROSS SECTION A-A

LEGEND
 XXX ORGANIC MUCK MATERIAL
 --- EXISTING CANAL BATHYMETRY
 (AMEC - SEPTEMBER 2016)

- NOTES:
- 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - 2) THE BATHYMETRIC DATA FOR PROJECT WAS OBTAINED BY AMEC IN SEPTEMBER 2016.
 - 3) THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND MONROE COUNTY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS



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ENGINEER OF RECORD
 STEPHEN HAIKS
 FL PE #2253

PROJECT:
**CANAL #148 LOWER
 MATECUMBE KEY
 AIR CURTAIN
 RESTORATION
 DESIGN AND PERMITTING**

APPLICANT:



AMEC PROJECT No:
 E783-16-2862

REVISIONS			
NO	DATE	BY	APPROVED

DESIGNED BY	AMC/ET
DRAWN BY	LEB
CHECKED BY	SM
APPROVED BY	ET
DATE	08/30/2016

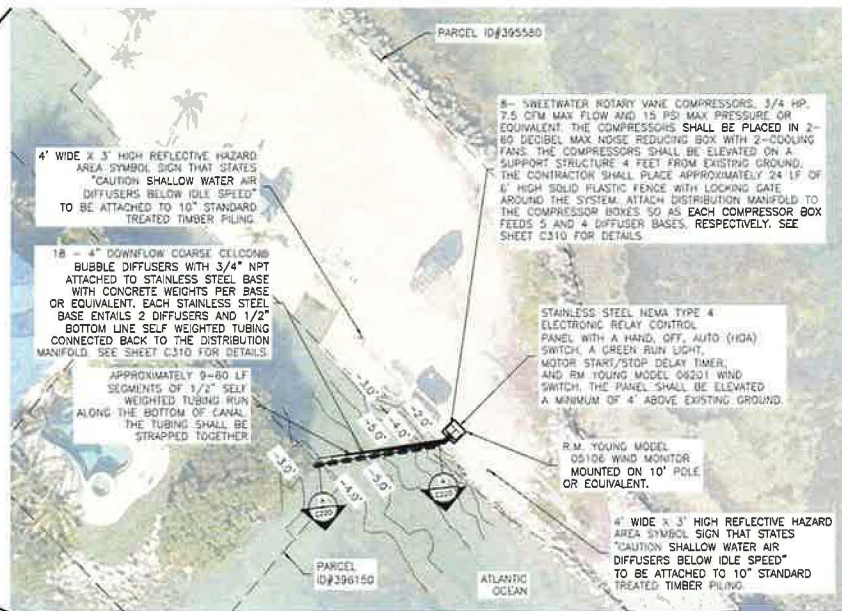
SHEET TITLE:

EXISTING
 SITE PLAN

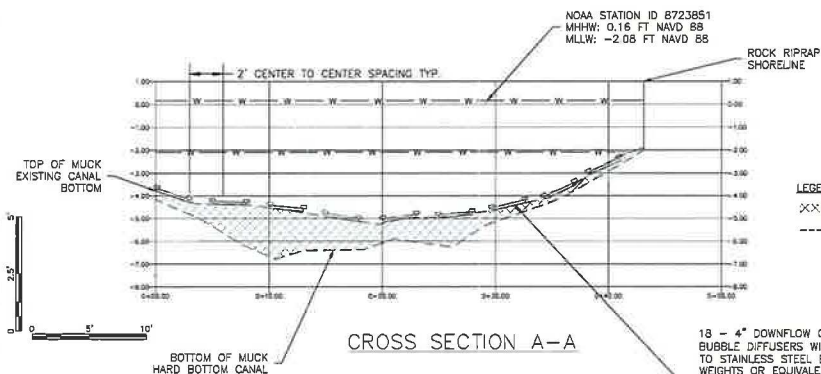
SHEET NUMBER	REV #
C210	
SHEET 3 OF 6 SHEETS	



OVERALL SITE LAYOUT



PROPOSED SITE LAYOUT - WEED BARRIER



CROSS SECTION A-A

LEGEND
 XXXX ORGANIC MUCK MATERIAL
 --- EXISTING CANAL BATHYMETRY (AMEC - SEPTEMBER 2016)

18 - 4" DOWNFLOW COARSE CELCON® BUBBLE DIFFUSERS WITH 3/4" NPT ATTACHED TO STAINLESS STEEL BASE WITH CONCRETE WEIGHTS PER BASE OR EQUIVALENT. EACH STAINLESS STEEL BASE ENTAILS 2 DIFFUSERS AND 1/2" BOTTOM LINE SELF WEIGHTED TUBING CONNECTED BACK TO THE DISTRIBUTION MANIFOLD. DIFFUSER BASES PLACED OVER A MUCK THICKNESS GREATER THAN 1 FOOT SHALL BE PLACED OVER TWO CONCRETE PILLOWS PLACED BELOW EACH DIFFUSER. SEE SHEET C310 FOR DETAIL.

NOTES:

- 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
- 2) THE BATHYMETRIC DATA FOR PROJECT WAS OBTAINED BY AMEC IN SEPTEMBER 2016.
- 3) THE CONTRACTOR SHALL CONSTRUCT THE FEATURES AS FOLLOWS:
 - (1) INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND MAINTAIN THROUGHOUT PROJECT - SHEET C230
 - (2) CONSTRUCT STAGING AREA - SHEET C230
 - (3) INSTALL CONTROL PANEL, WIND SWITCH, AND WEATHER MONITOR - SHOWN ABOVE
 - (4) INSTALL TRANSMISSION LINE, MANIFOLDS AND BLOWER PUMPS - SHOWN ABOVE AND SHEET C310
 - (5) INSTALL DIFFUSERS WITH DIVERS TO MINIMIZE DISTURBANCE OF THE CANAL BOTTOM. - SHOWN ABOVE AND SHEET C310
 - (6) TURN ON WEED BARRIER SYSTEM AND ENSURE THE SYSTEM HAS A UNIFORM DISTRIBUTION OF BUBBLES ACROSS THE CANAL MOUTH. - SHOWN ABOVE AND SHEET C310
 - (7) OBTAIN FINAL APPROVAL, REMOVE EROSION AND SEDIMENTATION CONTROLS AND STABILIZE ANY AREA DISTURBED BY THEIR REMOVAL. - SHEET C230
 - (8) COMPLETE TWO YEARS OF SYSTEM OPERATION AND MAINTENANCE
- 4) NO MANGROVE TRIMMING IS PERMITTED WITH THE INSTALLATION OF THE PROJECT



AMEC PROJECT No:
 6783-16-2862

CANAL #148 LOWER
 MATECUMBE KEY
 AIR CURTAIN
 RESTORATION
 DESIGN AND PERMITTING

APPLICANT:



AMEC PROJECT No:
 6783-16-2862

NO.	DATE	BY	APPROVED

DESIGNED BY	SW/2016
DRAWN BY	SW/2016
CHECKED BY	SW/2016
APPROVED BY	SW/2016
DATE	06/03/2016

SHEET TITLE:
 PROPOSED
 SITE PLAN

SHEET NUMBER	REV #
C220	
SHEET 4 OF 6 SHEETS	



OVERALL SITE LAYOUT

0 150' 300'



PROPOSED EROSION AND SEDIMENT CONTROL LAYOUT - WEED BARRIER

0 20' 40'

- LEGEND**
- PROJECT AREA - 0.07 ACRES
 - STAGING AREA - 0.002 ACRES
 - MONROE COUNTY PARCELS, 2010
 - EXISTING CANAL BATHYMETRY (AMEC - SEPTEMBER 2016)
 - FLOATING TURBIDITY BARRIER

- NOTES:**
- 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - 2) THE BATHYMETRIC DATA FOR PROJECT WAS OBTAINED BY AMEC IN SEPTEMBER 2016.
 - 3) THE CONTRACTOR SHALL CONSTRUCT THE FEATURES AS FOLLOWS:
 - (1) INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND MAINTAIN THROUGHOUT PROJECT - SHOWN ABOVE AND SHEET C310
 - (2) CONSTRUCT STAGING AREA - SHOWN ABOVE
 - (3) INSTALL CONTROL PANEL, WIND SWITCH, AND WEATHER MONITOR - SHEET C220 AND C310
 - (4) INSTALL TRANSMISSION LINE, MANIFOLDS, AND BLOWER PUMPS - SHEET C220 AND C310
 - (5) INSTALL DIFFUSERS WITH DIVERS TO MINIMIZE DISTURBANCE OF THE CANAL BOTTOM. - SHEET C220 AND C310
 - (6) TURN ON WEED BARRIER SYSTEM AND ENSURE THE SYSTEM HAS A UNIFORM DISTRIBUTION OF BUBBLES ACROSS THE CANAL MOUTH - SHEET C220 AND C310
 - (7) OBTAIN FINAL APPROVAL, REMOVE EROSION AND SEDIMENTATION CONTROLS AND STABILIZE ANY AREA DISTURBED BY THEIR REMOVAL - SHOWN ABOVE
 - (8) COMPLETE TWO YEARS OF SYSTEM OPERATION AND MAINTENANCE

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 5845 NW 158TH STREET
 MIAMI LAKES, FL 33014
 TEL: (305) 818-8414

ENGINEER OF RECORD
 STEPHEN HAIKS
 FL PE #72253

PROJECT:
CANAL #148 LOWER MATECUMBE KEY AIR CURTAIN RESTORATION DESIGN AND PERMITTING

APPLICANT:



AMEC PROJECT No:
 E793-15-2862

REVISIONS			
NO	DATE	BY	APPROVED

DESIGNED BY:	5/11/2016
DRAWN BY:	1/21
CHECKED BY:	5/11
APPROVED BY:	5/11
DATE:	10/30/2016

SHEET TITLE:
PROPOSED EROSION AND SEDIMENT CONTROL PLAN

SHEET NUMBER	REV #
C230	
SHEET 5 OF 6	SHEET 15



TYPE II - IMPERMEABLE FLOATING TURBIDITY BARRIER

GRAINGER 18C775
PRESSURE GAUGE

ROTAMETER DWYER
RMC-121-BV
FLOW METER

PORTABLE MANIFOLD GAUGE

1-1/4" EPOXY COATED
GALVANIZED PIPE ATTACHED TO
COMPRESSOR CABINETS
WITH THREADED CAPS
ON EITHER END

BRASS NIPPLE THREADED
INTO TRANSMISSION
LINE USING A PIPE TAP

BRASS QUICK DISCONNECT
FOR PORTABLE MANIFOLD
GAUGE SHOWN ABOVE.

BRASS QUICK DISCONNECT
FOR SELF WEIGHTED TUBING

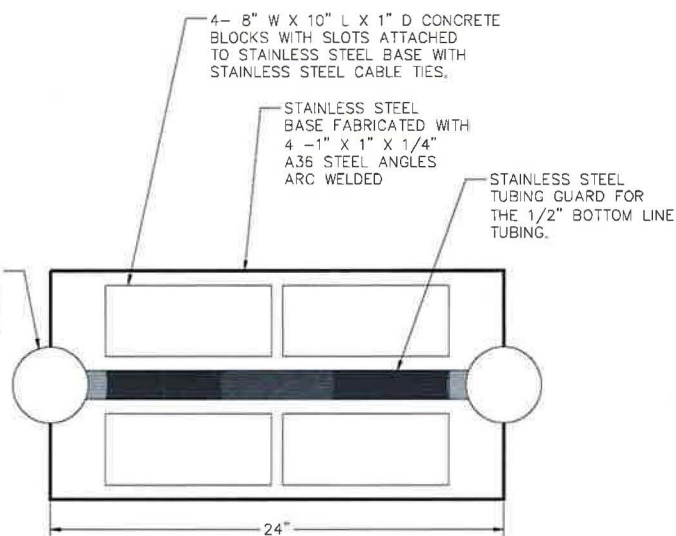
1/2" SELF WEIGHTED TUBING
CONNECTED TO QUICK
DISCONNECT WITH PIPE BARB
AND STAINLESS STEEL CLAMP

MANIFOLD DISTRIBUTION SYSTEM

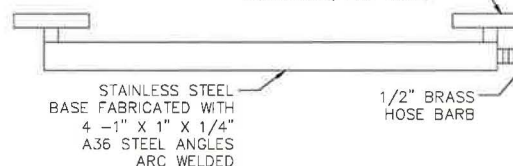
NOTE:

- 1) THE CONTRACTOR SHALL DISTRIBUTE THE (9) 1/2" SELF TUBING LINES BETWEEN THE (2) 1-1/4" EVENLY.
- 2) ALL CONNECTIONS SHALL BE CHECKED TO ENSURE AIR TIGHT. THE ADDITION OF ADHESIVES AND PIPE GLUE SHALL BE MARINE GRADE.

2 - 4" DOWNFLOW COARSE
CELCON® BUBBLE DIFFUSER
WITH 3/4" NPT, OR
EQUIVALENT, PER BASE.



2 - 4" DOWNFLOW COARSE
CELCON® BUBBLE DIFFUSER
WITH 3/4" NPT, OR
EQUIVALENT, PER BASE.



PROFILE

STAINLESS STEEL BASE WITH DIFFUSERS



ENVIRONMENTAL &
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ENGINEER OF RECORD
STEPHEN HARKS
FL PE #2253

PROJECT

CANAL #148 LOWER
MATECUMBE KEY
AIR CURTAIN
RESTORATION
DESIGN AND PERMITTING

APPLICANT



SMC PROJECT No.
E 783-16-2862

REVISIONS			
NO.	DATE	BY	APPROVED

DESIGNED BY:	S.H./J.M.
DRAWN BY:	L.M.
CHECKED BY:	S.H.
APPROVED BY:	S.H.
DATE:	10/30/2016

SHEET TITLE	
DESIGN DETAILS I	

SHEET NUMBER	REV. #
C310	
SHEET 6 OF 6 SHEETS	

Canal #148 - Air Curtain

ATTACHMENT 2

Legend

Canal #148 Air Curtain



2000 ft

Google earth

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